



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/662,682

09/15/2003

Michael Scott Burnett

C03-05

9785

40990

7590

05/12/2006

ACUSHNET COMPANY
333 BRIDGE STREET
P. O. BOX 965
FAIRHAVEN, MA 02719

EXAMINER

HUNTER, ALVIN A

ART UNIT

PAPER NUMBER

3711

DATE MAILED: 05/12/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/662,682	Applicant(s) BURNETT ET AL.	
	Examiner Alvin A. Hunter	Art Unit 3711	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 May 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 57,59-61 and 63-67 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 57,59-61 and 63-67 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 57, 61, and 63-67 are rejected under 35 U.S.C. 103(a) as being unpatentable over Beach et al. (USPN 6623378) in view of Galloway et al. (USPN 6575845) and Masahiko et al. (JP 2002-000772) further in view of Molitor et al. (USPN 4762322).

Regarding claim 57, Beach et al. discloses a golf club head comprising a first body portion **34** composed of a first material having a density and forming at least a front face portion having a geometric center and a sole section, a second body portion **20** composed of a second material having a density that is less than the density of the first material and forming a crown section and a substantial portion of a skirt attached to the first portion (See Entire Document). Beach et al. does not disclose modifying the center of gravity or having a front face of which gradually decreases in thickness from the sole to the crown. Galloway et al. discloses a club head having a first and second portion wherein weights are incorporated into the club head to move the center of gravity of the club head to that desired by the artisan (See Column 8, lines 30 through 48). One having ordinary skill in the art would have found it obvious to incorporate weights into the club head of Beach et al. in order to influence the center of gravity and

Art Unit: 3711

moment of inertia. It should be noted the Galloway et al. is geared to increasing the moment of inertia. Masahiko discloses a club head having a thickness which gradually decreases from the sole to the crown. Not only does Masahiko discloses the face profile for increasing the moment of inertia, but teaches that the profile can allow the user to control the spin quantity (See Entire Document). One having ordinary skill in the art would have found it obvious to incorporate a face of such profile into Beach et al., as taught by Masahiko, in order to increase the moment of inertia of the club head.

Galloway et al. does not teach the location of the center of gravity of the club head.

Molitor et al. discloses a club head having a center of gravity at least 5mm lower than the geometric face center (See Abstract and the summary of the invention). One having ordinary skill in the art would have found it obvious to incorporate the location of the center of gravity into Galloway et al., moreso incorporate the center of gravity teaching of Molitor et al. and Galloway et al. into Beach et al. in order to improve the playability characteristics of the club head. One skilled in the art knows that it is common within the art to have the point where the maximum amount of energy to be transferred to the ball to be close to the center of the club face. Galloway et al. is proof of such. It is submitted that the above combination would naturally have a point of maximum COR near the geometric center of the club face being that it is common within the art to have it at such a place.

Regarding claim 61, Applicant does not note the different characteristics that arise from having a magnesium second body vs. a composite second body. The applicant also notes that composites may substituted for magnesium. Being that the

Art Unit: 3711

different in characteristics are not shown by the applicant, one having ordinary skill in the art would have found it obvious to use any type of material for the second body so long as it is lightweight and it contributes to lowering the center of gravity of the club head.

Regarding claim 63, Beach et al. does not disclose the first material being stainless steel. Galloway et al. discloses a club head comprising the same materials as that of Beach et al., but Galloway et al. Also recognizes the used of stainless steel to be used as a material for the first body (See Column 6, lines 18 through 30). One having ordinary skill in the art would have found it obvious to substitute stainless steel in place of titanium, as taught by Galloway et al. so long as the moment of inertia desired by the artisan is attained. Beach et al. disclose the second body made of a composite material.

Regarding claim 64, Beach et al. discloses the second body being molded (See Columns 6 and 7).

Regarding claim 65, Beach et al. discloses the first body being forged (See Paragraph bridging columns 3 and 4).

Regarding claim 66, Beach et al. discloses the first body being casted (See Paragraph bridging columns 3 and 4).

Regarding claim 67, Beach et al. Galloway et a, and Masahiko all disclose the face portion of the club head being made of titanium or stainless steel; therefore, based on the material selection in combination with the structuring, the maximum COR is naturally meet by the combination above.

Art Unit: 3711

Claims 59 and 60 are rejected under 35 U.S.C. 103(a) as being unpatentable over the prior art as applied to claim 57 above in view of Kosmatka (USPN 6478692).

Regarding claim 59, the prior art as applied above discloses the club head having a first material being titanium alloy, the second material being a pre-preg material (composite), but does not disclose the second material being a graphite composite. Kosmatka discloses a club head wherein the club head has a body made of either graphite composite or carbon composite. When using the two fibers the club head tends to have a larger volume, in particularly, the two fibers are used to attain volume of the same range (See Column 12, lines 34 through 54). One having ordinary skill in the art would have found it obvious to use either type of fiber as taught by Kosmatka being that the materials appear to be substitutable equivalents.

Regarding claim 60, the prior art as applied above in view of Kosmatka does not explicitly recited the dimensions being claimed by the applicant; however, the phenomenon disclosed by the applicant would naturally occur within the combination applied above. Masahiko disclose faces in which gradually decrease from the sole to the crown. This would inherent produce a face in which the spring effect is move more upward. It is believed that the different in dimensions is based on the size of the club head. Larger sized club heads can be made to have thinner materials incorporated therein versus smaller sized club heads. One having ordinary skill in the art would have found the thickness of the face portion to be an obvious matter of design choice wherein the thickness can be of any value so long as it coincides with the size and goals of the club head.

Response to Arguments

Applicant's arguments filed 05/01/06 have been fully considered but they are not persuasive. Applicant argues that Masahiko does not disclose the front face progressively thinning from the sole toward the crown. The examiner disagrees. There is no set point as to where the progression has to occur. "Progressive" is defined as moving onward, but in the instant claim (claim 57), there is no point in which the progression is to start. The language only requires the thickness to get thinner toward the sole, in which Masahiko shows. For this reason the above rejection has been furnished.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Sugimoto (JP 11-347158) discloses a club head having a front face wherein the thickness is greatest at the sole and gradually becomes thinner from the sole to the crown wherein the thickness improves repulsion and suppresses excessive backspin.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

Art Unit: 3711

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alvin A. Hunter whose telephone number is (571) 272-4411. The examiner can normally be reached on Monday through Friday from 7:30AM to 4:00PM Eastern Time.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gene Kim, can be reached on 571-272-4463. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DAH

Alvin A. Hunter, Jr.



**EUGENE KIM
SUPERVISORY PATENT EXAMINER**